

SUMMARY OF THE INVENTION

It is the object of the pre-sent invention to provide a method and a device which support a simple and a faster formation of groups with a minimum number of necessary machine clock cycles in paper handling systems.

The present invention is a method of transferring at least two sheets, which are arranged in a shingled mode of arrangement in a sheet transport direction, to a sheet handling machine in which the at least two sheets are moved at a first speed after the transfer, a first and a second sheet of the at least two sheets being spaced by a certain length of displacement in the sheet transport direction,

wherein the at least two sheets are supplied to the sheet handling machine at a second speed, the second speed being higher than the first speed; and

wherein the second sheet is decelerated to a third speed as soon as the first sheet is decelerated to the first speed in the sheet handling machine, the third speed being lower than the second speed.

The present invention is a device for transferring at least two sheets, which are arranged in a shingled mode of arrangement in a sheet transport direction, to a sheet handling machine which comprises a transport unit which moves the at least two sheets at a first speed after the transfer, a first and a second sheet of the at least two sheets being spaced by a certain length of displacement in the sheet transport direction, the device having

a feed roll which feeds the at least two sheets to the sheet handling machine at a second speed, the second speed being higher than the first speed; and

a brake roll which decelerates the second sheet to a third speed as soon as the first sheet is decelerated by the transport unit, the third speed being lower than the second speed.

On page 5, please delete the third paragraph, "Other preferred further developments of the present invention are defined in the subclaims." and substitute therefor the heading --

BRIEF DESCRIPTION OF THE DRAWINGS--.

On page 6, after the description of Fig. 7A-7D, please insert the following heading:

DESCRIPTION OF THE PREFERRED EMBODIMENTS.

On page 9, please replace the current second paragraph with the following substitute paragraph, so that the paragraph reads as follows:

ag The sheets 200 and 202 are supplied at a second speed by means of a feed device which is not shown in Fig. 2; according to a preferred embodiment, this second speed is approx. 3 m/s, but it may also be in the range of from 2 m/s to 6 m/s.

On page 9, please replace the current third paragraph with the following substitute paragraph, so that the paragraph reads as follows:

ag When the sheets 200, 202 reach the shingle roll 204, their supply speed is decelerated, and, for preventing the two sheets 200 and 202 from sliding over one another, the brake roll 206 is switched over from its first position shown in Fig. 2A to the position shown in Fig. 2B at which the brake roll 206 engages the edge 202b of the second sheet 202 which is the trailing edge in the paper transport direction, and decelerates this edge so that the shingled arrangement of the two sheets 200 and 202 is maintained. The brake roll causes the second sheet 202 to be decelerated to a speed of approx. 2 m/s, but this speed may also be in the range of from 0.2 m/s to 2 m/s. The brake roll 206 is switched over as soon as the first sheet 200 has reached the shingle roll 204. According to a preferred embodiment, the first speed (transport speed) corresponds to the third speed (deceleration speed). This situation is preferred, since an ideal behaviour during the transfer operation will be obtained in this case. The shingle length of the transferred sheets corresponds, in this case, to the shingle length of the sheets applied to the dé-vice.

On page 24, please delete the last paragraph of the Specification.

In the Claims:

Please amend Claims 1-3, and 7-15 as follows:

OK GTD 1. (Once Amended) A method of transferring at least two sheets [(200, 202)], which are arranged in a shingled mode of arrangement in a sheet transport direction [(P)], to a sheet handling machine [(600, 602)] in which the at least two sheets are moved at a first speed after the transfer, a first and a second sheet of the at least two sheets being spaced by a certain length of displacement [(X)] in the sheet transport direction [(P)], the method comprising the following steps: